3. The thin film transistor array substrate of claim 1, wherein the bottom gate electrode and the top gate electrode are connected to each other.

4. The thin film transistor array substrate of claim 1, wherein the bottom gate electrode comprises amorphous silicon or poly silicon.

5. The thin film transistor array substrate of claim 1, wherein a thickness of the first insulating layer or the second insulating layer is less than or equal to a thickness of the third insulating layer.

6. The thin film transistor array substrate of claim 1, wherein a thickness of the top gate electrode is greater than or equal to a thickness of the source contact region or the drain contact region.

7. The thin film transistor array substrate of claim 1, wherein a length of the oxide semiconductor region is less than or equal to a threshold value.

8. The thin film transistor array substrate of claim 1, wherein the oxide semiconductor region comprises at least one oxide selected from gallium indium zinc oxide (G-I—Z—O), zinc (Zn), indium (In), gallium (Ga), tin (Sn) cadmium (Cd), germanium (Ge), hafnium (Hf), or a combination thereof.

9. An organic light-emitting display apparatus comprising:

a first transistor comprising a bottom gate electrode, a first active layer including a contact region and an oxide semiconductor region, a top gate electrode, a first source electrode, and a first drain electrode;

a second transistor comprising a second active layer of a same layer and of a same material as the bottom gate electrode, a gate electrode of a same layer and of a same material as the contact region, and a second source electrode and a second drain electrode of a same layer and of a same material as the first source electrode and the first drain electrode; and

a light-emitting device comprising a pixel electrode, an interlayer, and a counter electrode,

wherein the oxide semiconductor region is between a source contact region and a drain contact region of the contact region, and

wherein a region of the bottom gate electrode not overlapped by the source contact region or the drain contact region is doped with ion impurities.

10. The organic light-emitting display apparatus of claim 9, wherein the bottom gate electrode comprises:

a gate area of a silicon semiconductor and doped with ion impurities; and

undoped areas on left and right sides of the gate area.

11. The organic light-emitting display apparatus of claim 9, wherein the first transistor is a driving transistor of the organic light-emitting display apparatus, and the second transistor is a switching transistor of the organic light-emitting display apparatus.

12. The organic light-emitting display apparatus of claim 9, wherein the first source electrode and the first drain electrode do not overlap the doped region of the bottom gate electrode.

13. The organic light-emitting display apparatus of claim 9, further comprising a capacitor, wherein the capacitor comprises:

a first electrode of the same layer and of the same material as the contact region; and

a second electrode of .a same layer and of a same material as the top gate electrode.

14. The organic light-emitting display apparatus of claim 13, wherein the capacitor further comprises a third, electrode of the same layer and of the same material as the first source and first drain electrodes.

15. The organic light-emitting display apparatus of claim 9, wherein the bottom gate electrode comprises amorphous silicon or poly silicon.

16. The organic light-emitting display apparatus of claim 9, wherein the second transistor comprises an auxiliary gate electrode of a same layer and of a same material as the top gate electrode.

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